

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026894**Date Inspected:** 15-Dec-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite**CWI Name:** As noted below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

1. 13W14W/D1 R2 (Exterior)
2. 13W/14W/A5 (Interior)

1. 13W14W/D1 R2 (Exterior)

This QA Inspector randomly observed ABF welder James Zhen performing the back-gouge operation of ultrasonic rejectable indications on "D1" 13W/14W on the exterior of the OBG located at "Y" 8640 mm: (35 mm wide; 250 mm length; and 25 mm in depth) "Y" 9240 mm: (27 mm wide; 120 mm length; and 19 mm in depth) "Y" 9670 mm: (26 mm wide; 110 mm length; and 19 mm in depth). This QA Inspector observed QC Inspector William Sherwood perform a Magnetic Particle Inspection (MT) of the excavation to determine the soundness of the metal. Upon completion of the testing this QA Inspector verified that no rejectable indications were present. This QA Inspector noted that the procedure for CWR is pending the Engineer's approval and that the excavation at "Y" 8640 exceeded 65% of the welds depth and does not comply with ABF-WPS-D1.5-1004-Repair.

This QA Inspector randomly observed ABF qualified welder James Zhen (Welder ID 6001) performing the repair welding operation of three (3) ultrasonic rejectable indications as per the Shielded Metal Arc Welding (SMAW) process in the (4G) overhead position on OBG splice plate "D1" 13W/14W. The excavated area was as

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noted as a Critical Weld Repair (CWR) and at the time of this report; the procedure is pending the Engineer's approval. This QA Inspector observed QC Inspector Mr. William Sherwood verify that the preheat temperature was at the minimum of 325 Degrees F and that the welding parameters (Amps, Volts, and Travel Speed) were in accordance with WPS D1.5 - 1004 Repair.

This joint is a Seismic Performance Critical Member (SPCM).

13W/14W/D1 "Y" 7750 mm (Exterior)

This QA Inspector randomly observed ABF welder Wai Kit Lai (Welder ID 2953) performing the repair welding operation of an ultrasonic indication as per the Shielded Metal Arc Welding (SMAW) process in the (4G) overhead position on "D1" at y + 7750. This QA Inspector observed the use of 1/8" (3.2mm) E7018-H4R electrodes and QC Inspector William Sherwood verify the preheat temperature and that the welding parameters (Amps=135) were in accordance with WPS D1.5-1004- Repair. The welding parameters observed at this location appeared to be in general compliance with approved WPS and the contract specifications. Upon completion of the repair, a thermal induction blanket was placed over the area for Post Weld Heat Treatment (PWHT) at 450 degrees F for 1 hour.

This joint is a Seismic Performance Critical Member (SPCM).

2. 13W/14W/A5 (Interior)

This QA Inspector randomly observed ABF welding operator Richard Garcia (ID 5892) performing the Flux Core Arc Welding with gas (FCAW-G) process in the (4G) overhead position on face B of "A" deck, at 13W/14W section A5 of the OBG. This QA Inspector observed QC Inspector William Sherwood monitoring the welding to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-3110-4. The parameters were recorded as (A=250/V=23.2/TS=150/HI=2.3). This QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work is in progress and appears to be in general conformance to the contract requirements.

This joint is a Seismic Performance Critical Member (SPCM).

This QA Inspector performed a progress survey of the westbound OBG plate splices, lifting lug hole and vent holes from 11W-14W as directed by QA Lead Inspector, Daniel Reyes.

12W/13W/F1 QA MT

This QA Inspector performed a magnetic particle inspection (MT) of the completed weld area on edge plate F1 at 12W/13W on the exterior of the OBG. This QA Inspector observed that no rejectable indications were present and the work appeared to be in general conformance with the contract specifications.

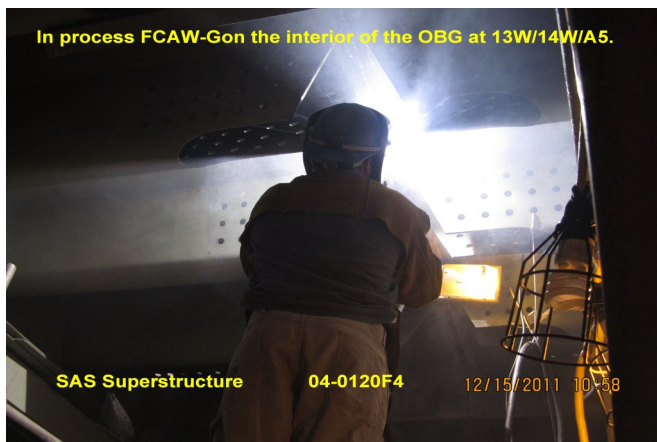
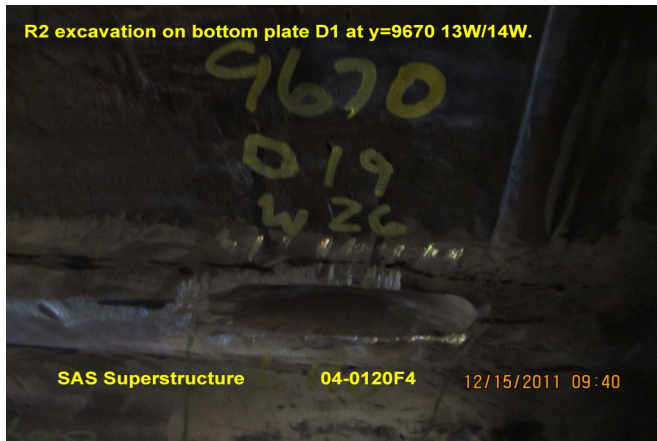
Note: The QAI reviewed the observations and inspection with QA Lead Inspector, Daniel Reyes, written in this report. The issues were noted by the QAI and the QA Lead Inspector concurs with the QA report.

Summary of Conversations:

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The were no pertinent conversations to report.



Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

Inspected By:	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
